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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
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ART UNIT	PAPER NUMBER
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,112	KURITA ET AL.	
	Examiner	Art Unit	
	William J. Klimowicz	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15,16 and 18-30* is/are pending in the application.

4a) Of the above claim(s) *25-28 and 30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,16,18-24 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 19, 2008 has been entered.

Claim Status

Claims 1-14 and 17 have been voluntarily cancelled by the Applicant.

Claims 15, 16, 18-30 are currently pending.

Election/Restrictions

Applicant's election without traverse of Group I (Claims 15, 16, 18-24 and 29) in the reply filed on November 2, 2007 is acknowledged.

Claims 25-28 and 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 2, 2007.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 16 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takamori et al. (US 6,961,952 B1) in view of Nishikata (JP 08-031133 A) and Hayashi (US 2004/0013082 A1).

As per claim 15, Takamori et al. (US 6,961,952 B1) discloses a disc cartridge (e.g., see FIG. 12) comprising: a disc (e.g., 101); and a main cartridge body unit (e.g., 102) having said disc (e.g., 101) rotatably housed therein and including a recording and/or reproducing aperture (e.g., 106) for exposing a portion of said disc (101) to outside across inner and outer rims of said disc (101), wherein an entrance part (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101)) for a head unit (including (128, 129) provided to a recording and/or reproducing apparatus is formed in continuation to said recording and/or reproducing aperture (106), for entrance of at least a portion of said head part (128, 129).

As per claim 16, wherein said entrance part (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of

disc (101)) for said head unit (128, 129) is an opening continuing to said recording and/or reproducing aperture (106).

As per claim 19, wherein said entrance part for said head unit (128, 129) is formed as a recess (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101)).

As per claim 20, further comprising a shutter unit (108) for opening/closing said recording and/or reproducing aperture (106); and said entrance part for said head unit (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101)) is formed in a surface (side-edge surface as seen in FIG. 12) on which slides said shutter unit (108) in continuation to said recording and/or reproducing aperture (106).

As per claim 21, wherein a bent part (e.g., side (110) of shutter) for closing a space produced between said shutter member (108) and said entrance part for said head unit when said shutter unit (108) has been moved to a position of closing said recording and/or reproducing aperture (106) is formed on one side (110) of the shutter member (108) of said shutter unit (108) closing said recording and/or reproducing aperture (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101)).

Additionally, as per claim 22, Takamori et al. (US 6,961,952 B1) further discloses wherein a recessed shutter slide part (e.g., 114) is formed in an area of a surface of said main cartridge body unit (102), on which slides said shutter member (108), and wherein said entrance part for said head unit (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where

opposing apertures (104, 106) meet in the thickness direction of disc (101)) is formed as a recess of a depth deeper than the depth of said shutter slide part (114) - see FIGS. 10-12.

As per claim 23, Takamori et al. (US 6,961,952 B1) discloses a recording and/or reproducing apparatus (e.g., 23, 123) comprising a disc (101); a main cartridge body unit (102) having said disc (101) rotatably housed therein and including a recording and/or reproducing aperture (106) for exposing a portion of said disc (101) to outside across inner and outer rims of said disc (101); a cartridge loading unit (means for seating cartridge on player 23, 123) for loading a disc (101) cartridge (e.g., see FIG. 12) thereon, said disc cartridge (102) including a recess (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101) or alternatively, curved hub recess for acceptance of spindle motor) continuing to said recording and/or reproducing aperture (106); and recording and/or reproducing means (e.g., including 128, 129 and/or spindle motor 126)) for recording and/or reproducing the information for the disc (101) housed in said disc cartridge (102); wherein when said recording and/or reproducing means (128, 129 and/or 126) is introduced via said recording and/or reproducing aperture (106) for recording and/or reproducing the information for said disc (101), a portion of said recording and/or reproducing means (128, 129 and/or 126) is introduced into said recess (e.g., see FIG. 12) thereon, said disc cartridge (102) including a recess (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101) or alternatively, curved hub recess for acceptance of spindle motor).

As per claim 24, wherein said recording and/or reproducing means (128, 129 and/or 126) is composed of an objective lens (128) and an optical block (129) (or alternatively, the unshown

bobbin structure on which lens is supported), and wherein when said objective lens (128) is introduced via said recording and/or reproducing aperture (106) for recording and/or reproducing the information for said disc (101), said optical block ((129) or alternatively, the unshown bobbin structure on which lens is supported) is introduced into said recess (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101) - note that the recording/reproducing apparatus including (129) must be located within the recess when the optical lens is reading the outermost track of the disc).

As per claim 17, Takamori et al. (US 6,961,952 B1) does not expressly disclose wherein the thin lateral surface (122) (disposed between apertures (104) and (106)) of said entrance part for said head unit is an inclined surface for inhibiting abutment against said head part.

Nishikata (JP 08-031133 A), however, discloses an analogous disk cartridge wherein the thin lateral surface (e.g., at (10) of an entrance part for a head unit (8, 9)) is an inclined surface (10) for inhibiting abutment against said head part (8, 9).

Additionally, as per claim 18, Nishikata (JP 08-031133 A) discloses wherein said inclined surface (10) is formed on an opposite side to a side (i.e., the side closest to the disc hub which is a side of a surface which is continuous to the recording/reproducing aperture) continuing to said recording and/or reproducing aperture.

Given the express teachings and motivations, as espoused by Nishikata (JP 08-031133 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the inclined lateral surface of the head entrance part of a disc cartridge, as taught by Nishikata (JP 08-031133 A), to the disc cartridge of Takamori et al. (US 6,961,952 B1).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the inclined lateral surface of the head entrance part of a disc cartridge, as taught by Nishikata (JP 08-031133 A), to the disc cartridge of Takamori et al. (US 6,961,952 B1) in order to "avert[] damaging of an objective lens of on optical pickup and its periphery in spite of runaway of the optical pickup." See abstract of Nishikata (JP 08-031133 A).

As per claims 17 and 23, Takamori et al. (US 6,961,952 B1) in combination with Nishikata (JP 08-031133 A) does not expressly disclose wherein a periphery of the main cartridge body unit including a substantially semicircular arcuate section.

Such structure, however, is well known. As just one example, Hayashi (US 2004/0013082 A1) discloses an analogous disk cartridge wherein in order to reduce the size of the cartridge (1), a periphery of the main cartridge body unit including a substantially semicircular arcuate section.

Given the express teachings and motivations, as espoused by Hayashi (US 2004/0013082 A1), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk cartridge of Takamori et al. (US 6,961,952 B1) in combination with Nishikata (JP 08-031133 A), as having a periphery of the main cartridge body unit including a substantially semicircular arcuate section, as is well known in the art, as exemplified by Hayashi (US 2004/0013082 A1).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the disk cartridge of Takamori et al. (US 6,961,952 B1) in combination with Nishikata (JP 08-031133 A), as having a periphery of the main cartridge body unit including a substantially

semicircular arcuate section, as is well known in the art, as exemplified by Hayashi (US 2004/0013082 A1) in order to provide a compact and small sized disk cartridge which has a contour closely matching the circular periphery of the encased disk.

Claims 23, 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake et al. (US 2000-21113 A) in view of Takamori et al. (US 6,961,952 B1) and Hayashi (US 2004/0013082 A1).

As per claim 23, Miyake et al. (US 2000-21113 A) discloses a recording and/or reproducing apparatus comprising a disc (3); a main cartridge body unit (1) having said disc (3) rotatably housed therein and including a recording and/or reproducing aperture (8) for exposing a portion of said disc (3) to outside across inner and outer rims of said disc (3); a cartridge loading unit for loading a disc cartridge thereon, said disc cartridge (1) including a recess (7) continuing to said recording and/or reproducing aperture (8); and recording and/or reproducing means for recording and/or reproducing the information for the disc (3) housed in said disc cartridge (1); wherein when said recording and/or reproducing means is introduced via said recording and/or reproducing aperture for recording and/or reproducing the information for said disc, a portion of said recording and/or reproducing means is introduced into said recess, wherein a lateral surface (e.g., 43) - see FIGS. 4a-4c - of said recess (7) is an inclined surface for inhibiting abutment against the portion of said recording and/or reproducing means.

As per claim 29, wherein said inclined surface (43) is formed on an opposite side to a side continuing to said recording and/or reproducing aperture (8) - see FIG. 4a.

As per claims 23-24, Miyake et al. (US 2000-21113 A) remains silent with respect to wherein the cartridge is shown being used in its intended operating environment (e.g., a recording and/or reproducing apparatus), wherein when said recording and/or reproducing means is introduced via said recording and/or reproducing aperture for recording and/or reproducing the information for said disc, and a portion of said recording and/or reproducing means is introduced into said recess.

Such conventional structure, however, is well known. As just one example, Takamori et al. (US 6,961,952 B1) discloses a recording and/or reproducing apparatus (e.g., 23, 123) comprising a disc (101); a main cartridge body unit (102) having said disc (101) rotatably housed therein and including a recording and/or reproducing aperture (106) for exposing a portion of said disc (101) to outside across inner and outer rims of said disc (101); a cartridge loading unit (means for seating cartridge on player 23, 123) for loading a disc (101) cartridge (e.g., see FIG. 12) thereon, wherein when said recording and/or reproducing means (128, 129 and/or 126) is introduced via said recording and/or reproducing aperture (106) for recording and/or reproducing the information for said disc (101), a portion of said recording and/or reproducing means (128, 129 and/or 126) is introduced into the recording aperture and its immediate surrounding area.

Additionally, as per claim 24, Takamori et al. (US 6,961,952 B1) further discloses wherein said recording and/or reproducing means (128, 129 and/or 126) is composed of an objective lens (128) and an optical block (129) (or alternatively, the unshown bobbin structure on

which lens is supported), and wherein when said objective lens (128) is introduced via said recording and/or reproducing aperture (106) for recording and/or reproducing the information for said disc (101), said optical block ((129) or alternatively, the unshown bobbin structure on which lens is supported) is introduced into the area immediately surrounding the aperture (e.g., see FIG. 12 - the "upper-left" end portion of aperture (106) where opposing apertures (104, 106) meet in the thickness direction of disc (101) - note that the recording/reproducing apparatus including (129) must be located within the recess when the optical lens is reading the outermost track of the disc).

Given the express teachings and motivations, as espoused by Takamori et al. (US 6,961,952 B1), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the cartridge of Miyake et al. (US 2000-21113 A) as being used in its intended operating environment, including wherein when said recording and/or reproducing means is introduced via said recording and/or reproducing aperture for recording and/or reproducing the information for said disc, and a portion of said recording and/or reproducing means is introduced into said recess, as suggested by Takamori et al. (US 6,961,952 B1).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the cartridge of Miyake et al. (US 2000-21113 A) as being used in its intended operating environment, including wherein when said recording and/or reproducing means is introduced via said recording and/or reproducing aperture for recording and/or reproducing the information for said disc, and a portion of said recording and/or reproducing means is introduced into said recess, as suggested by Takamori et al. (US 6,961,952 B1) in order to record/reproduce

information from the disc housed within a cartridge, in a compact manner by providing the head as close to the disk cartridge as possible, as disclosed by Takamori et al. (US 6,961,952 B1).

As per claim 23, Miyake et al. (US 2000-21113 A) in combination with Takamori et al. (US 6,961,952 B1) does not expressly disclose wherein a periphery of the main cartridge body unit including a substantially semicircular arcuate section.

Such structure, however, is well known. As just one example, Hayashi (US 2004/0013082 A1) discloses an analogous disk cartridge wherein in order to reduce the size of the cartridge (1), a periphery of the main cartridge body unit including a substantially semicircular arcuate section.

Given the express teachings and motivations, as espoused by Hayashi (US 2004/0013082 A1), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the disk cartridge of Miyake et al. (US 2000-21113 A) in combination with Takamori et al. (US 6,961,952 B1) as having a periphery of the main cartridge body unit including a substantially semicircular arcuate section, as is well known in the art, as exemplified by Hayashi (US 2004/0013082 A1).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the disk cartridge of Miyake et al. (US 2000-21113 A) in combination with Takamori et al. (US 6,961,952 B1), as having a periphery of the main cartridge body unit including a substantially semicircular arcuate section, as is well known in the art, as exemplified by Hayashi (US 2004/0013082 A1) in order to provide a compact and small sized disk cartridge which has a contour closely matching the circular periphery of the encased disk.

Response to Arguments

Applicant's arguments with respect to claims 15, 16, 18-24 and 29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William J. Klimowicz/

Primary Examiner, Art Unit 2627